

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.**

Petition for Rulemaking

RM-9395

USA Digital Radio Partners, L.P.

Amendment of Part 73 of the
Commission's Rules to Permit
the Introduction of Digital Audio
Broadcasting in the AM and FM
Broadcast Services

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF BIG CITY RADIO, INC.

Big City Radio, Inc. ("Big City"), by its attorneys and pursuant to Section 1.405 of the Commission's Rules, hereby submits these Comments in opposition to the above-captioned Petition for Rulemaking (the "Petition") by USA Digital Radio Partners, L.P. (the "USADR"). In the Petition, USADR has asked that the Commission initiate a rulemaking proceeding that would propose the authorization of digital audio broadcasting ("DAB") by existing radio licensees. Although Big City appreciates the many benefits of digital radio, it cannot endorse the Petition.

Big City is a leader among radio broadcasters in employing technological innovations in order to enhance its stations' ability to serve the public effectively. It recognizes that digital radio has the potential to offer significant new

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capabilities and quality to radio broadcasts across the nation. It also agrees that the Commission should set a clear digital standard for broadcast radio transmissions at some future date. However, before any form of digital radio should be considered in a formal rulemaking proceeding, the Commission must be certain that the proposed version both safeguards existing radio transmissions and ensures efficient use of the broadcast spectrum. The current proposal, which has not undergone adequate field testing or computer simulation, risks significant -- and even fatal -- interference to many existing AM and FM licensees. Because the Petition does not demonstrate adequately that its proposal would not increase interference to existing radio licensees, the Commission should deny the Petition as premature and instead issue a Notice of Inquiry on the subject of digital radio.

I. DIGITAL RADIO DOES NOT REQUIRE – AND SHOULD NOT RESULT IN – AN IMMEDIATE RULEMAKING PROPOSAL BY THE COMMISSION AT THIS TIME.

Digital radio promises to afford new capabilities and increased quality to radio broadcasts throughout the United States. The digital revolution has begun, and radio broadcasters should begin to plan how they might bring the benefits of digital transmission to their listeners.

But the future promise of digital radio is not a reason to rush its implementation. The digital revolution is still in its initial phases. The much-publicized transition from analog to digital television only has begun to be implemented this year, and it is not expected to be complete until at least 2006, if not

significantly later. Other forms of media similarly have taken only a few hesitant steps toward digital transmission. The recent success of the radio industry as a whole confirms that the overwhelming majority of the public appears satisfied with the consistency and quality of existing radio broadcasts. Radio does not need to act in haste in preparing for its own transition to digital.

Accordingly, the Commission should move cautiously in proposing any rules regarding digital radio. As the Commission is all too aware, the transition of a broadcast medium from analog to digital is difficult and complex. ^{1/} Most important, a successful transition demands that the Commission does not jeopardize existing analog broadcasts until such time as most affected broadcasters and listeners are ready to employ digital transmission exclusively.

This fundamental requirement of a successful transition demands that any proposed rules relating to digital radio be based firmly in extensive field testing of all potential circumstances, as well as be supported by computer simulations and theoretical analyses. The Commission sensibly has recognized in past proceedings that it should not issue proposed rules with regard to digital radio until "test results indicate the feasibility of implementing such systems." ^{2/} Otherwise, a wrong

^{1/} See, e.g., Fifth and Sixth Reports and Orders, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket No. 87-268 (released April 21, 1997), *modified in part upon recon.* (released December 19, 1998).

^{2/} *Report and Order*, 10 FCC Rcd 2310, 2314 (1995).

move, such as a premature rulemaking proceeding, in the initial phases of any transition to digital may interfere or disrupt the established radio broadcasts of stations throughout the country, which would deprive many listeners of service and would cost licensees millions of dollars to correct. Unless the Commission is sure that it and the radio industry have had a full opportunity to consider and debate the relative merits of a variety of digital radio proposals, and the proposed means of implementing any such proposal, it should not propose rules relating to the implementation of digital radio.

II. THE PETITION DOES NOT OFFER AN ADEQUATE BASIS FOR THE COMMISSION TO ISSUE A NOTICE OF PROPOSED RULEMAKING WITH REGARD TO DIGITAL RADIO.

Big City applauds the effort of USADR to initiate consideration of digital radio broadcasting. But implementation of the form of digital radio the Petition proposes would appear, on its face, to risk the current quality and reliability of radio broadcasts. Also, the studies cited by the Petition are too incomplete to be considered an adequate analysis of the interference that would be caused existing analog signals were the Petition's proposal implemented. Because the Petition does not provide a sufficient basis for an informed discussion of the technical obstacles and risks associated with a transition to the form of digital radio preferred by the Petition, the Commission should not accept the Petition as a basis for a rulemaking proceeding.

On its face, the Petition raises serious concerns of interference to, among other types of facilities, Class A stations, short-spaced stations, and stations employing existing on-channel technologies, such as FM Boosters. In light of these issues, the Petition's DAB proposal -- to broadcast a radio station's digital signal in the same band and on the same channel ("IBOC") as a station's analog signal -- may well violate the cardinal principle of any transition to digital: to protect existing analog radio transmissions until the transition is virtually complete. The theory underlying DAB IBOC is that a radio station may broadcast a second, digital signal through two digital "sidebands" which are located on either edge of its main analog signal without interfering with the main signal. *See, e.g.*, Petition at 51. Such a digital signal is designed not to interfere with the same station's analog signal; however, such a signal appears likely to affect signals being broadcast on the first (and to a lesser extent, second) adjacent frequencies to the relevant station's signal. In fact, as the Petition makes clear, the digital sidebands actually would overlap the analog signal broadcasting on the channel first adjacent to the relevant station.

Such adverse effects of the Petition's DAB proposal on stations first- or second-adjacent to a station employing IBOC suggest that, unless USADR comprehensively demonstrates, through both computer simulations and in-field testing, that its proposal would not cause significant interference, the Commission should not propose any rules based on the Petition. The Petition does not meet this test.

In fact, the Petition appears to rely solely on computer simulations of its proposed methodology to support its conclusions that DAB IBOC would not cause significant interference to existing analog signals during a transition period. *See, e.g.*, Appendix E at 1.0 (noting that its findings on FM IBOC interference to analog signals “was modeled and simulated using . . . computer resources”). Such reliance on computer analysis is unconvincing, especially as USADR has had an experimental license to test such digital signals in a real-world environment. *See Petition* at 12 (acknowledging that substantial real-world tests will not even begin until sometime in 1999). The failure to prepare and include a comprehensive study based on actual tests of the IBOC method underscores that the Petition’s proposal requires further evaluation before it should be considered as a basis for a Commission rulemaking proceeding. 3/

Also troubling is that even these simulations were hardly comprehensive. The simulations ignore Class A stations. They also ignore short-spaced stations, a category which includes many stations in the congested urban centers of the United States. Furthermore, the simulations ignore the effect such

3/ Also relevant to this objection is that the pertinent subcommittee of the National Association of Broadcasters has just managed -- more than two months after the Petition was filed -- to adopt test guidelines for IBOC systems. Without such guidelines, it is hard to imagine any real evaluation of a proposed DAB system taking place in actual broadcasting conditions. Because such tests should precede, rather than post-date, any request for a DAB rulemaking, this only-recent approval of test guidelines by the NAB offers additional evidence that the Commission should not propose a rulemaking proceeding at this time.

digital sidebands might have on already existing “on-channel” technologies. Such technologies include traditional broadcasting staples such as FM fill-in boosters, which may suffer disproportionately from any adverse effect of an overlapping digital sideband. They also include more modern technical innovations, such as multi-station, synchronized simulcasting, by which a coordinated group of class A stations that operate on the same frequency may collectively reach a far larger audience through synchronized simulcasts than the stations could individually. Big City, among others, has developed this technique to the point where it is being used successfully in several major markets, and the result has been more diverse programming for large numbers of listeners in these markets.

By ignoring Class A and short-spaced stations, and by ignoring a variety of existing on-channel technologies, the Petition demonstrates that it cannot be used as a basis for a rulemaking proceeding regarding digital radio. Any proposal for digital radio must be expected to consider and analyze such matters, especially as issues relating to short-spaced stations and existing on-channel technologies likely will pose the most difficult test of any successful transition from analog to digital radio broadcasts.

III. CONCLUSION

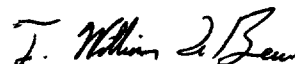
Big City believes in technical innovation. It relies on innovative technologies to provide significantly better service to its listeners in and near the nation's largest radio markets. It agrees that the Commission must facilitate an inquiry into the possible alternatives for digital radio, and, ultimately, should establish a set of clear standards for digital radio transmissions.

Big City also appreciates the efforts of USADR to initiate a discussion regarding the various means by which the radio industry may transition to digital broadcast transmissions. However, Big City cannot support any request for a rulemaking proceeding at this time in light of its serious concerns of interference and other adverse effects that may result from USADR's DAB proposal.

Accordingly, the Commission should refuse to issue a Notice of Proposed Rulemaking based on the Petition, but rather initiate a Notice of Inquiry in the general topic of digital radio broadcasting, which would facilitate discussion of all relevant digital radio issues and proposals prior to implementation.

Respectfully submitted,

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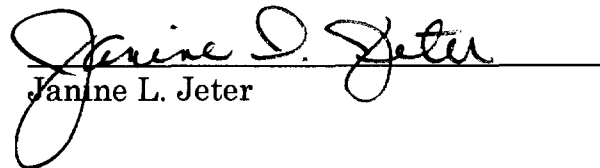
December 23, 1998

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Comments were mailed,
postage prepaid, this 23rd day of December, 1998 to:

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